Before doing anything with ARCore, Sceneform needs to be gone over because it will enable the programmers to completely skip over learning OpenGL.

The starting point for me was the below:

https://developers.google.com/ar/develop/java/cloud-anchors/quickstart-android#add an api key

Since, I was already bit immersed in ARCore.

They are not too specific about it, but the below is the example project they want you to use:

https://github.com/google-ar/arcore-android-sdk/tree/master/samples/cloud anchor java

However, I find the below to be much more intuitive to understand what the CloudAnchoring is doing because it's not cluttered with OpenGL stuff like the above. At the sametime, one can easily grasp that Sceneform is the norm in AR now.

https://github.com/zipper-studios/ARCoreCloudAnchors

By following every one of their Cloud Anchoring quickstart (literally, they want you to set up the whole API keys/Firebase stuff), the app is nearly prepared ...

The thing is, they left out some essential setups you have to do, but I am guessing they forgot because the GCP teams and AR teams aren't communicating enough.

Anyways,

https://github.com/google-ar/arcore-android-sdk/issues/369

You need the above. Despite the fact that documentation specifies that the above is needed, but I was spinning in a hamster wheel for a while; so, thought it was worth mentioning.

But, the below is never mentioned:

https://github.com/google-ar/arcore-android-sdk/issues/453

Where Firebase will encounter some permission issues with its database, if only use the quickstart to get started with the Cloud Anchoring.

https://developers.google.com/ar/develop/java/cloud-anchors/quickstart-android#add_an_api_key

I used the below StackOverflow post to resolve the issue:

 $\underline{https://stackoverflow.com/questions/37424544/firebase-database-permission-denied-with-read-write-permissions-set-to-true}$

The below posts are also relevant with the Firebase stuff:

https://stackoverflow.com/questions/37477644/firebase-permission-denied-error/37477852#37477852 https://github.com/google-ar/arcore-android-sdk/issues/453